

21 – 15 September 2016

Parties	Type	Subject and Financial Terms
Takeda / Affilogic (21 September 2016)	Research Collaboration	Collaboration to explore central nervous system therapies using Affilogic's proprietary Nanofitins® platform. Financial terms not disclosed.
AbbVie / Bioarctic (20 September 2016)	Commercialization Collaboration	Collaboration to develop and market BioArctic's portfolio of antibodies, designed for the treatment of Parkinson's disease. BioArctic is a private Swedish research-based pharmaceutical company. Financial terms not disclosed.
Akarna / Allergan (20 September 2016)	Acquisition	Allergan to acquire Akarna, a private biopharmaceutical company focused on the development of therapeutics that target inflammatory and fibrotic diseases, for a \$50 million upfront cost.
Teva / Regeneron (20 September 2016)	Commercialization Collaboration	Collaboration to develop and commercialize fasinumab, Regeneron's NGF antibody for osteoarthritis and lower back pain. Teva is to pay Regeneron \$250 million upfront cost to share equally in the global commercial value, excluding Japan, Korea and nine other Asian countries.
Tobira / Allergan (20 September 2016)	Acquisition	Allergan to acquire Tobira, a clinical stage biopharmaceutical company focused on therapies for non-alcoholic steatohepatitis and other liver diseases, for an upfront payment of \$28.35 per share. This figure could increase to \$49.84 per share, depending on the success of certain development, commercial and regulatory milestones, representing a total potential consideration of up to \$1.695 billion.
Unimedic / Basilea (20 September 2016)	Distribution Agreement	Unimedic has acquired an exclusive license to commercialize Basilea's antifungal CRESEMBA® (isavuconazole) and antibiotic Zevtera® (ceftobiprole) in Sweden, Denmark, Norway and Finland. Financial terms not disclosed.

Dr Reddy / Amgen (19 September 2016)	Commercialization Collaboration	Dr Reddy, an Indian generics maker pharmaceutical company, to market Amgen's Xgeva (denosumab), Vectibix (panitumumab) and Prolia (denosumab) in the Indian market. Financial terms not disclosed.
Ignyta / EORTC (19 September 2016)	Research Collaboration	Collaboration to utilise Ignyta's diagnostic laboratory to perform fusion testing for the EORTC (European Organisation for Research and Treatment of Cancer), as part of their SPECTA (Screening Patients for Efficient Clinical Trial Access) initiative. Financial terms not disclosed.
Madrigal / Tarveda (19 September 2016)	Exclusive License Agreement	Tarveda is a pharmaceutical company focused on developing targeted anti-cancer medicines for use with solid tumors. Madrigal is a clinical-stage pharmaceutical company focused on the commercialization of innovative therapies for the treatment of cardiovascular, metabolic and liver diseases. Tarveda has entered into an exclusive worldwide license agreement for the discovery, development and commercialization of Madrigal's HSP90 Drug Conjugate program, including the leading program, PEN-866 for use in Tarveda's products. The deal consists of an upfront payment and a series of subsequent payments up to an aggregate value of \$163 million.
Golden Meditech / MD Anderson (18 September 2016)	Commercialization Collaboration	Golden Meditech, a Hong-Kong based healthcare enterprise, and MD Anderson Cancer Centre have created Cellenkos Inc, a start-up enterprise for umbilical cord blood derived T-regulatory cellular therapies. Financial terms not disclosed.
Abbott / Johnson & Johnson (16 September 2016)	Asset Purchase	Johnson & Johnson to purchase Abbott Medical Optics business from Abbott for \$4.325 billion.
Aerie Pharmaceuticals (15 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering for general commercial purposes, including funding for clinical trials. Size of offering is \$50 million.
Pfizer / Oncolmmune (15 September 2016)	Exclusive License and Option Agreement	Pfizer has entered into an exclusive license and option agreement relating to Oncolmmune's ONC-392, a novel, differentiated preclinical anti-CTLA4 monoclonal antibody. The deal is worth up to \$250 million in upfront and future milestone payments.

8 – 14 September 2016

Parties	Type	Subject and Financial Terms
Agios Pharmaceuticals (14 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering for general commercial purposes, including funding for pre-commercial activities. Size of offering is approximately \$150 million.
Vitae / Allergan (14 September 2016)	Acquisition	Allergan to acquire all outstanding shares in Vitae for \$21.00 per share, in a transaction worth approximately \$639 million.
ImmuneHealth / Caprion (13 September 2016)	Asset Purchase	Caprion, a portfolio company of GHO Capital and a provider of proteomics and immune monitoring services to the pharmaceutical and biotechnology industry, is to purchase ImmuneHealth's Immune monitoring laboratory. ImmuneHealth provides immuno-monitoring testing in clinical trials for vaccines, immunotherapies, cell therapies and diagnostics.
Takeda / PRA Health Services (13 September 2016)	Strategic Partnership	PRA Health Sciences and Takeda entered into a partnership under which PRA Health Sciences will serve as Takeda's primary strategic partner to deliver on the company's pipeline and marketed products clinical development and post-approval needs.
GSK / Aspen (12 September 2016)	Asset Purchase	Aspen to purchase GSK's anaesthesia portfolio for £180 million plus milestone payments up to £100 million.
Lonza / Massachusetts Eye and Ear (12 September 2016)	Strategic Partnership	Lonza and Massachusetts Eye and Ear, a vision and hearing research centre, entered into a strategic agreement for the development and commercialization of novel gene therapies. The agreement is designed to accelerate gene therapy drug development across the field to address diseases in need of treatments in order to reach more patients. Financial terms not disclosed.
Raptor Pharmaceutical / Horizon Pharma (12 September 2016)	Acquisition	Horizon Pharma to acquire all issued and outstanding shares in Raptor Pharmaceuticals for \$9 per share, representing a transaction value of approximately \$800 million.
Sanofi / Verily Life Sciences (12 September 2016)	Joint Venture	Sanofi and Verily Life Sciences launched Onduo, a joint venture "to help people with diabetes live full, healthy lives by developing comprehensive solutions that combine devices, software, medicine, and professional care to enable simple and intelligent disease management." Financial terms not disclosed.

Takeda / MacroGenics (12 September 2016)	Termination of License and Option Agreement	The two companies announced the conclusion of their license and option agreement for MGD010, a humanized DART molecule that simultaneously targets CD32B (a checkpoint molecule expressed on B lymphocytes) and CD79B (a component of the B-cell antigen receptor complex, delivers a co-inhibitory signal that dampens B-cell activation). MacroGenics has regained the worldwide rights to MGD010. Financial terms not disclosed.
CoLucid Pharmaceuticals (9 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering to fund clinical trials. Size of offering is \$65 million.
AveXis (8 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering to fund clinical trials. Size of offering is approximately \$146 million.
Proteostasis Therapeutics (8 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering to fund clinical trials. Size of offering is \$65 million.
Sage Therapeutics (8 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering to fund the ongoing development of pre-commercialization activities of Sage Therapeutics' lead product candidate. Size of offering is \$174,999,971.

1 – 7 September 2016

Parties	Type	Subject and Financial Terms
DelMar / Accurexa (7 September 2016)	Development Collaboration	DelMar, a cancer therapy company, to enter into a development agreement with Accurexa, a neurological therapy company. Under the terms of the agreement DelMar has been granted an exclusive option to license, acquire and commercialize products and Intellectual property rights resulting from the research.
Cepheid / Danaher Corporation (6 September 2016)	Acquisition	Danaher, a global science and technology company, to acquire Cepheid, a global molecular diagnostics company, for approximately \$4 billion.
Mitsubishi Tanabe Pharma / Sun Pharma (6 September 2016)	Distribution Agreement	Mitsubishi Tanabe Pharma to market and distribute 14 Sun Pharma long-listed/established prescription brands in Japan. Financial terms not disclosed.
RetroSense / Allergan (6 September 2016)	Acquisition	Allergan to acquire RetroSense, a private, clinical-stage biotechnology company focused on novel gene therapy approaches to restore vision in patients suffering from blindness.

		RetroSense will receive an upfront payment of \$60 million and will receive undisclosed potential milestone payments.
Amgen / Servier (1 September 2016)	Commercialization Collaboration	Amgen and Servier to advance their cardiovascular collaboration, with Servier to exercise its option to commercialize omecamtiv mecarbil in chronic heart failure in Europe, as well in as the Commonwealth of Independent States, including Russia, which were added to the collaboration. Servier will make a \$10 million option exercise payment, as well as future milestone and royalty payments, to Amgen. Servier will assume a share of the development costs.
AstraZeneca / Aspen (1 September 2016)	Asset Purchase	Aspen Global Incorporated, part of the Aspen Group, to acquire the rights to AstraZeneca's global anaesthetics portfolio outside the US. The agreement covers seven established medicines - Diprivan (general anaesthesia), EMLA (topical anaesthetic) and five local anaesthetics (Xylocaine/Xylocard/Xyloproct, Marcaine, Naropin, Carbocaine and Citanest). AstraZeneca will receive an upfront payment of \$520 million in relation to the portfolio of anaesthetic medicines. Further, AstraZeneca will receive up to \$250 million in a product sales-related payment, as well as royalties.
Boehringer Ingelheim / Amgen (1 September 2016)	License Agreement	Amgen has acquired global development and commercial rights from Boehringer Ingelheim for BI 836909 (AMG 420), a bispecific T cell engager that targets B-cell maturation antigen, a potential target for multiple myeloma. Financial terms not disclosed.
Momenta Pharmaceuticals (1 September 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on equity offering for general corporate purposes. Size of offering is \$65.4 million.

25 – 31 August 2016

Parties	Type	Subject and Financial Terms
Cynapsus Therapeutics / Sunovion Pharmaceuticals (31 August 2016)	Acquisition	Sunovion Pharmaceuticals, a global biopharmaceutical company focused on the innovative application of science and medicine to help people with serious medical conditions, to acquire Cynapsus Therapeutics, a specialty central nervous system pharmaceutical company, for approximately \$624 million.

Saniona / Boehringer Ingelheim (29 August 2016)	Research Collaboration	<p>Collaboration to discover and develop novel compounds for the treatment of schizophrenia.</p> <p>Boehringer Ingelheim has been granted the exclusive worldwide rights to research, develop, manufacture and commercialize products arising from the collaboration.</p> <p>Saniona will receive an upfront payment of EUR 5 million and research, development and regulatory milestone payments up to EUR 50 million. Saniona is also entitled to commercial milestone payments up to EUR 35 million plus royalties.</p>
Seikagaku Corporation / Ferring Pharmaceuticals (29 August 2016)	Exclusive License Agreement	<p>Ferring Pharmaceuticals purchased the exclusive worldwide rights (excluding Japan) to Seikagaku's SI-6603 (condoliase), a chemonucleolytic product for the treatment of radicular leg pain due to lumbar disc herniation.</p> <p>Seikagaku will receive an undisclosed license fee as well as milestone and royalty payments.</p>
Abeona Therapeutics (26 August 2016)	Follow-on equity offering (NASDAQ)	Follow-on offering for working capital and general corporate purposes. Size of offering is \$75 million.

18 – 24 August 2016

Parties	Type	Subject and Financial Terms
AstraZeneca / Pfizer (24 August 2016)	Asset Purchase	<p>Pfizer to acquire the development and commercialization rights to AstraZeneca's late-stage small molecule anti-infectives business.</p> <p>AstraZeneca will receive an upfront payment of \$500 million as well as a deferred payment of \$175 million. AstraZeneca is also eligible to receive up to \$250 million in milestone payments and \$600 million in sales-related payments, plus royalties.</p>
Bioclinica / Cinven (23 August 2016)	Acquisition	Cinven, a private equity firm, to acquire Bioclinica, a provider of clinical trial services and technology to contract research organisations and pharmaceutical companies. Financial terms not disclosed.
Medivation / Pfizer (22 August 2016)	Acquisition	Pfizer to acquire Medivation, a biopharmaceutical company focused on the development and commercialization of medically innovative therapies to treat serious diseases for which there are limited treatment options, for \$81.50 a share in cash, representing a transaction value of approximately \$14 billion.

11 – 17 August 2016

Parties	Type	Subject and Financial Terms
LEO Pharma / AstraZeneca (16 August 2016)	License Agreement	<p>LEO Pharma to acquire the global rights to AstraZeneca's tralokinumab in skin diseases. Tralokinumab is a potential new medicine (an anti-IL-13 monoclonal antibody) that has completed a Phase IIb trial for the treatment of patients with atopic dermatitis, an inflammatory skin disease resulting in itchy, red, swollen and cracked skin. (AstraZeneca will retain all rights to tralokinumab in respiratory disease and any other indications outside of dermatology.)</p> <p>AstraZeneca will receive an upfront payment of \$115 million in exchange for the exclusive, global rights to tralokinumab in atopic dermatitis and any future additional dermatology indications. LEO Pharma will also pay up to \$1 billion in commercially-related milestones plus royalties.</p>
OncoMed Pharmaceuticals (17 August 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to fund general corporate purposes. Size of offering is \$55 million.
ForSight VISION5 / Allergan (11 August 2016)	Acquisition	<p>Allergan to acquire ForSight VISION5, a privately held, clinical-stage biotechnology company focused on eye care, for a \$95 million upfront payment. ForSight will also receive a launch milestone payment related to its lead development program, a peri-ocular ring designed for extended drug delivery and reducing elevated intraocular pressure in glaucoma patients.</p>

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